

Desert deposits

Satellite view of desert sub-environments

D

A satellite view of the Turfan depression in China shows the relationship of the mountains, alluvial fans, dunes and playa lakes.

Transport by wind

D or A P 10 min

Take a piece of lining wallpaper 120cm by 50 cm. and make a channel by folding up 10cm on each of the long edges. Make a line across the channel every 5cm along its length and write on each line its distance from the end.

Place poorly sorted sand on the 5cm mark. Hold a hair drier on the 0 mark and turn it on. Notice the distribution of the different grain sizes. Do the same with sand and galena sand of the same size. Do the same with a sand grain and a mica flake each weighting the same (0.1g).

Transport by wind

E P F 15 min

As above but with trays in a channel to catch the sediment so the measurements can be quantitative.



Apparatus for transport by wind

Desert sand

E P F 15 min

To demonstrate the greater degree of rounding achieved by wind than water transport and to generate discussion of why. Take 8 pieces of soft limestone (not chalk) each about 25g. Divide the limestone into two groups of 4 each. Weigh each group. Put one group into a plastic container and the second into another but fill the latter with water. Shake both with equal intensity for five min. Weigh each group after drying and note any changes in shape. The group shaken in air will show some rounding, those in water will not.